

Thursday, January 21, 2021

Attn: Ms. Jennifer Atkins AECOM 250 Apollo Drive Chelmsford, MA 01824

Project ID: GULF CHELSEA TERMINAL 60597375-0500

SDG ID: GCH47847

Sample ID#s: CH47847 - CH47848

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory. This report is incomplete unless all pages indicated in the pagination at the bottom of the page are included.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Sincerely yours,

Phyllis/Shiller

Laboratory Director

NELAC - #NY11301

CT Lab Registration #PH-0618

MA Lab Registration #M-CT007

ME Lab Registration #CT-007

NH Lab Registration #213693-A,B

NJ Lab Registration #CT-003

NY Lab Registration #11301

PA Lab Registration #68-03530

RI Lab Registration #63

UT Lab Registration #CT00007

VT Lab Registration #VT11301



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

Sample Id Cross Reference

January 21, 2021

SDG I.D.: GCH47847

Project ID: GULF CHELSEA TERMINAL 60597375-0500

| Client Id | Lab Id | Matrix |
|-------------|---------|--------------|
| OUTFALL 003 | CH47847 | SW DISCHARGE |
| TRIP BLANK | CH47848 | SW DISCHARGE |



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Analysis Report

January 21, 2021

FOR: Attn: Ms. Jennifer Atkins

AECOM

250 Apollo Drive

Chelmsford, MA 01824

Sample InformationCustody InformationDateTimeMatrix:SW DISCHARGECollected by:01/15/2116:00Location Code:AECOME-GULFReceived by:B01/18/2114:25

Rush Request: 72 Hour Analyzed by: see "By" below

P.O.#: 112185

_aboratory Data SDG ID: GCH47847

Phoenix ID: CH47847

Project ID: GULF CHELSEA TERMINAL 60597375-0500

Client ID: OUTFALL 003

| | | RL/ | | | | | |
|-----------------------------|------------------|------|---------|----------|----------------|-------|---------------|
| Parameter | Result | PQL | Units | Dilution | Date/Time | Ву | Reference |
| Oil and Grease by EPA 1664A | < 1.4 | 1.4 | mg/L | 1 | 01/19/21 | MSF | EPA 1664 |
| pH | 7.68 | 1.00 | pH Unit | s 1 | 01/18/21 20:46 | AP/EG | SM4500-H B-11 |
| Total Suspended Solids | < 3.3 | 3.3 | mg/L | 0.7 | 01/19/21 | LS | SM 2540D-11 |
| Semi-Volatile Extraction | Completed | | | | 01/18/21 | P/CG | SW3520C |
| Aromatic Volatiles w/Na | <u>apthalene</u> | | | | | | |
| Benzene | ND | 1.0 | ug/L | 1 | 01/18/21 | MH | E624.1 |
| Methyl t-butyl ether (MTBE) | ND | 2.0 | ug/L | 1 | 01/18/21 | MH | E624.1 |
| Naphthalene | ND | 1.0 | ug/L | 1 | 01/18/21 | MH | E624.1 |
| QA/QC Surrogates | | | | | | | |
| % 1,2-dichlorobenzene-d4 | 103 | | % | 1 | 01/18/21 | MH | 70 - 130 % |
| % Bromofluorobenzene | 92 | | % | 1 | 01/18/21 | MH | 70 - 130 % |
| % Dibromofluoromethane | 106 | | % | 1 | 01/18/21 | MH | 70 - 130 % |
| % Toluene-d8 | 98 | | % | 1 | 01/18/21 | MH | 70 - 130 % |
| Ethanol | ND | 400 | ug/L | 1 | 01/18/21 | МН | E624.1 |
| Semivolatiles by SIM, P | <u>PAH</u> | | | | | | |
| Benzo(a)pyrene | ND | 0.02 | ug/L | 1 | 01/19/21 | WB | E625.1 |
| Naphthalene | ND | 0.10 | ug/L | 1 | 01/19/21 | WB | E625.1 |
| QA/QC Surrogates | | | | | | | |
| % 2-Fluorobiphenyl | 61 | | % | 1 | 01/19/21 | WB | 40 - 140 % |
| % Nitrobenzene-d5 | 74 | | % | 1 | 01/19/21 | WB | 40 - 140 % |
| % Terphenyl-d14 | 81 | | % | 1 | 01/19/21 | WB | 40 - 140 % |
| | | | | | | | |

Project ID: GULF CHELSEA TERMINAL 60597375-0500 Phoenix I.D.: CH47847

Client ID: OUTFALL 003

RL/

Parameter Result PQL Units Dilution Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

The regulatory hold time for pH is immediately. This pH was performed in the laboratory and may be considered outside of hold-time

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Phyllis Shiller, Laboratory Director

January 21, 2021

Reviewed and Released by: Rashmi Makol, Project Manager



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Analysis Report

January 21, 2021

FOR: Attn: Ms. Jennifer Atkins

AECOM

250 Apollo Drive

Chelmsford, MA 01824

Matrix: SW DISCHARGE Collected by: 01/15/21

Location Code: AECOME-GULF Received by: B 01/18/21 14:25

Rush Request: 72 Hour Analyzed by: see "By" below

P.O.#: 112185 Laboratory Data SDG ID: GCH47847

Phoenix ID: CH47848

Project ID: GULF CHELSEA TERMINAL 60597375-0500

Client ID: TRIP BLANK

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | Ву | Reference | | | | |
|---------------------------------|--------|------------|-------|----------|-----------|----|------------|--|--|--|--|
| Aromatic Volatiles w/Napthalene | | | | | | | | | | | |
| Benzene | ND | 1.0 | ug/L | 1 | 01/18/21 | MH | E624.1 | | | | |
| Methyl t-butyl ether (MTBE) | ND | 2.0 | ug/L | 1 | 01/18/21 | MH | E624.1 | | | | |
| Naphthalene | ND | 1.0 | ug/L | 1 | 01/18/21 | MH | E624.1 | | | | |
| QA/QC Surrogates | | | | | | | | | | | |
| % 1,2-dichlorobenzene-d4 | 102 | | % | 1 | 01/18/21 | MH | 70 - 130 % | | | | |
| % Bromofluorobenzene | 91 | | % | 1 | 01/18/21 | MH | 70 - 130 % | | | | |
| % Dibromofluoromethane | 105 | | % | 1 | 01/18/21 | MH | 70 - 130 % | | | | |
| % Toluene-d8 | 99 | | % | 1 | 01/18/21 | MH | 70 - 130 % | | | | |
| Ethanol | ND | 400 | ug/L | 1 | 01/18/21 | МН | E624.1 | | | | |

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

TRIP BLANK INCLUDED.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director

January 21, 2021

Reviewed and Released by: Rashmi Makol, Project Manager



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QA/QC Report

Parameter

Comment:

Comment:

January 21, 2021

QA/QC Data

Blk Sample Dup Dup LCS LCSD LCS MS MSD MS Rec RPD Result Blank RL Result RPD % **RPD** % % **RPD** Limits Limits % QA/QC Batch 560543 (mg/L), QC Sample No: CH47397 (CH47847) **Total Suspended Solids BRL** <3.3 93.0 85 - 115 QA/QC Batch 560539 (mg/L), QC Sample No: CH47706 (CH47847) Oil and Grease by EPA 1664A BRL 1.4 99.0 96.0 3.1 85 - 115 20 Additional: MS acceptance range 75-125%. QA/QC Batch 560583 (pH), QC Sample No: CH47736 (CH47847) 0.30 98.4 85 - 115 20

SDG I.D.: GCH47847

Additional: LCS acceptance range is 85-115% MS acceptance range 75-125%.



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QA/QC Report

QA/QC Data

| January 21, 2021 | QA/QC Data | | | | | SDG I | 347 | | | | | |
|---|----------------|------------|--------------------------------|-----------|-----------|------------|----------|----------|-----------|--------------------|--------------------|---|
| Parameter | Blank | Blk RL | | LCS % | LCSD % | LCS RPD | MS % | MSD % | MS RPD | % Rec Limits | % RPD Limits | |
| QA/QC Batch 560510 (ug/L), | QC Samp | le No: CH4 | 7787 (CH47847) | | | | | | | | | |
| Semivolatiles by SIM, P | PAH | | | | | | | | | | | |
| Benzo(a)pyrene | ND | 0.02 | | 58 | 86 | 38.9 | | | | 40 - 140 | 20 | r |
| Naphthalene | ND | 0.50 | | 56 | 56 | 0.0 | | | | 40 - 140 | 20 | |
| % 2-Fluorobiphenyl | 63 | % | | 66 | 66 | 0.0 | | | | 40 - 140 | 20 | |
| % Nitrobenzene-d5 | 65 | % | | 68 | 68 | 0.0 | | | | 40 - 140 | 20 | |
| % Terphenyl-d14 | 102 | % | | 86 | 96 | 11.0 | | | | 40 - 140 | 20 | |
| Comment: | | | | | | | | | | | | |
| Additional 8270 criteria: 10% of acceptance range for aqueous | | | | ia as lor | ng as rec | overy is | at least | 10%. (Ad | cid surro | ogates | | |
| QA/QC Batch 560570 (ug/L), | QC Samp | le No: CH4 | 7848 (CH47847, CH ² | 17848) | | | | | | | | |
| <u>Volatiles</u> | | | | | | | | | | | | |
| Benzene | ND | 0.70 | | 91 | 88 | 3.4 | 86 | 87 | 1.2 | 65 - 135 | 20 | |
| Methyl t-butyl ether (MTBE) | ND | 1.0 | | 116 | 114 | 1.7 | 108 | 111 | 2.7 | 70 - 130 | 30 | |
| Naphthalene | ND | 1.0 | | 102 | 105 | 2.9 | 91 | 96 | 5.3 | 70 - 130 | 30 | |
| % 1,2-dichlorobenzene-d4 | 102 | % | | 99 | 99 | 0.0 | 99 | 97 | 2.0 | 70 - 130 | 30 | |
| % Bromofluorobenzene | 91 | % | | 99 | 100 | 1.0 | 99 | 98 | 1.0 | 70 - 130 | 30 | |
| % Dibromofluoromethane | 107 | % | | 97 | 100 | 3.0 | 98 | 102 | 4.0 | 70 - 130 | 30 | |
| % Toluene-d8 | 97 | % | | 98 | 98 | 0.0 | 98 | 97 | 1.0 | 70 - 130 | 30 | |
| Comment: | | | | | | | | | | | | |
| A blank MS/MSD was analyzed | d with this ba | atch. | | | | | | | | | | |
| QA/QC Batch 560568 (ug/L), | QC Samp | le No: CH4 | 7848 (CH47847, CH4 | 17848) | | | | | | | | |
| <u>Oxygenates</u> | | | | | | | | | | | | |
| Ethanol | ND | 200 | | 99 | 116 | 15.8 | 114 | 112 | 1.8 | 70 - 130 | 30 | |
| Comment: | | | | | | | | | | | | |

r = This parameter is outside laboratory RPD specified recovery limits.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

RPD - Relative Percent Difference

LCS - Laboratory Control Sample

LCSD - Laboratory Control Sample Duplicate

A blank MS/MSD was analyzed with this batch.

MS - Matrix Spike

MS Dup - Matrix Spike Duplicate

NC - No Criteria

Intf - Interference

Phyllis/Shiller, Laboratory Director

January 21, 2021

Thursday, January 21, 2021

Sample Criteria Exceedances Report GCH47847 - AECOME-GULF

Criteria: None State: MA

RL Analysis
SampNo Acode Phoenix Analyte Criteria Units

Phoenix Laboratories does not assume responsibility for the data contained in this exceedance report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.

^{***} No Data to Display ***



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Analysis Comments

January 21, 2021 SDG I.D.: GCH47847

The following analysis comments are made regarding exceptions to criteria not already noted in the Analysis Report or QA/QC Report:

VOA-OXY Narration

CHEM23 01/18/21-2: CH47847, CH47848

The following Initial Calibration compounds did not meet RSD% criteria: Ethanol 40% (20%) The following Initial Calibration compounds did not meet maximum RSD% criteria: None.

| | | | | | | | | |
|---|--|--|---|--|------------------|------|--|---|
| Cooler, Yes No Cooler, Yes No Coolent: IPK N ICE No Cooler No Coo | 1-978-905-2112 jennifer atkins@aecom.com | Project P.O: 112185 This section MUST be completed with Bottle Quantities. | | | 7 | | ertification | S-1 Data Package S-2 S-3 MWRA eSMART Other Cult Data Package* Other Cult Data Package* Other Cult Data Package* Other Cult Data Package* |
| Fax: Da | ~ = I | Pro | 1 1 2 2 2 2 2 2 | 8/0/2 | е ч | | MA MCP C GW-1 GW-2 GW-3 G | S-1 S-2 S-3 Other |
| | | Project: Gulf Chelsea Terminal / 60597375-0500 Report to: Jennifer Atkins Invoice to: AECOM QUOTE # AE012319RM | 200 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | 100 100 100 100 100 100 100 100 100 100 | | | CT Direct Exposure CT CT CT CT CT CT CT C | where sam |
| CHAIN OF CUSTODY RECORD 587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040 | info@phoenixlabs.com Fax (860) 644 Client Services (860) 645-8726 | | Analysis Request | \$0 S\$7 1X0 | × × × | | Date: Time: I | Turnaround: うらと 1 Day 2 Days たんだい 2 Days たんだい 2 Days たんだい 3 Days たんじ 1 Other ・ Surcharge Applies |
| CI B7 East M | Email | | / 5-2/ | Time Sampled | 7600 | | | s deug |
| , in | | | Date: L-/ Date: Ww=Waste Wi | | 17-51-1 | | | enciéMTBE sonpie for 3 day |
| | Inc. | | Identifica | Sample | 3 | | | i ; c' i |
| | ental Laboratories, | AECOM 250 Apollo Drive Chelmsford, MA 01824 Jennifer Atkins | Signature Matrix Code: Nater Sw=Surface Water Ww=Waste Water RW=Raw Water SE=Sediment SL=Sludge S=Soil SD=Soild W=Wipe OIL=Oil | Customer Sample Identification | Trop Blank 1 & 2 | | Accepted by: | Comments, Special Requirements or Regulations: Please include Ethanoi & MTBE in analysis Picase run TSS Sample for Picase run TSS Sample for |
|)Hd | Environmental | Customer: Address: | Sampler's Signature Matrix Code: UWFDMKMG Water RWERAW Water SE B=Bulk L=Liquid | PHOENIX USE ONLY SAMPLE # | 47848 | | Relinquished by | Comments, Special Please In And Please |